UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P O Box 1450
Alexandria, Virginia 22313-1450
www uspto gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,128	11/20/2006	Takashi Nakamura	S004-5842 (PCT)	4058

7590 09/13/2010

Bruce L Adams
Adams & Wilks
17 Battery Place-Suite 1231
New York, NY 10004

EXAMINER	
CHOI, JEFFREY	

ART UNIT	PAPER NUMBER
3735	

MAIL DATE	DELIVERY MODE
09/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,128	NAKAMURA ET AL.	
	Examiner	Art Unit	
	JEFFREY CHOI	3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-13 and 15-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-13 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 9, 13, and 19 are objected to because of the following informalities:

Regarding claim 9, "informatiop" in line 3 should read --information-- and "subj ect" in line 21 should read --subject--.

Regarding claim 13, "degreed" in line 3 should read --degree--.

Regarding claim 19, "subj ect" in line 3 should read --subject--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7, 9-13, and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoshima et al. (US Patent 6,099,478).

Regarding claim 1, Aoshima et al. teaches an organism information detecting apparatus for detecting organism information of a subject, the organism information detecting apparatus comprising:

- Organism information detecting means for detecting the organism information of the subject by being brought into contact with the subject for a previously

determined sampling time period and outputting an organism signal (Fig. 1; col. 4, lines 16-38);

- Organism information data calculating means for calculating an organism information data by processing the organism signal (Fig. 1; col. 4, lines 45-54);
- Supplementary data calculating means for calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data (Fig. 11; col. 8, lines 53-67); It is inherent that the supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;
- Data storing means for relating the organism information data and the supplementary data to be stored (Fig. 1, reference 106; col. 5, lines 5-30).

Regarding claim 2, Aoshima et al. teaches a motion state determining means for determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.

Regarding claim 3, Aoshima et al. teaches a reliability degree determining means for determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state determined

by the motion state determining means is a previously determined motion state (col. 6, lines 10-34). An SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a determination is made that the SN level condition is good, then the pulse data is considered "reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state; specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Regarding clam 4, Aoshima et al. teaches

- Informing means for informing the organism information data to the subject (Fig. 1, reference 108); and
- Informing data determining means for determining the organism information data informed by the informing means based on whether the reliability degree determined by the reliability degree determining means is a previously determined reliability degree (Fig. 1, reference 106; col. 6, lines 10-34). Aoshima et al. teaches that an informing data determining means (an SN condition determining means) is used to determine the organism information data informed by the informing means. It is inherent that the reliability degree determined by the reliability degree determining means is a previously

determined reliability degree because when the system is run over several cycles of pulse waves, a reliable signal indicated by a good SN condition level would have been a previously determined reliability degree – that is, there would have been existent cycles of pulse waves that also showed the same SN level/reliability degree.

Regarding claim 7, Aoshima et al. teaches that the organism information detecting apparatus equally divides the sampling time period into a plurality of pieces of block time periods, defining the sampling time period at and after a second time by erasing an oldest one block time period in the sampling time period at a preceding time and adding one block time period for new measurements (col. 4, lines 49-54 - wherein each block time period is a one-minute interval from each cycle of pulse waves). When Aoshima et al. is run over several cycles of pulse waves, the sampling is taken from one block time period after another, where a separate one-minute long block time period is added each time the prior one is processed. Aoshima et al. further teaches the supplementary data calculating means calculates an average value of each of the block time periods of the variation amount per time of the data constituted by digitizing the organism signal (col. 8, lines 53-67) and calculating an average value of the average values of the respective block time periods as the supplementary data in the sampling time period (col. 10, lines 15-29). Aoshima et al. teaches specifically that the supplementary data is calculated as an average value over the specified time interval/block time period - in this case, Aoshima sets a block time period of one minute (see col. 4, lines 49-54).

Regarding claim 9, Aoshima et al. teaches an organism information processing server which is an organism information processing server for

- communicating information with an organism information detecting apparatus for outputting an organism signal by detecting organism information of a subject by a previously determined sampling period (Fig. 14 – CPU server 1208 communicates information with an organism information detecting apparatus 1201 and 1202; Fig. 1; col. 4, lines 16-38);
- calculating an organism information data by processing the organism signal and calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data and executing a previously determined processing to the information received from the organism 41 information detecting apparatus (Fig. 1; col. 4, lines 45-54; Fig. 11; col. 8, lines 53-67). The supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;

the organism information processing server comprising:

- communicating means for receiving the organism information data and the supplementary data from the organism information detecting apparatus (Fig. 14 - wherein CPU server 1208 receives data transmission from organism information detecting apparatus 1201

- data storing means for relating the organism information data and the supplementary data to be stored (Fig. 1, reference 106; col. 5, lines 5-30);
- motion state determining means for determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.
- Reliability degree determining means for determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state determined by the motion state determining means is a previously determined motion state (col. 6, lines 10-34). An SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a determination is made that the SN level condition is good, then the pulse data is considered “reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state. Specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Regarding claim 10, Aoshima et al. teaches an organism information detecting system which is an organism information detecting system comprising an organism information detecting apparatus for detecting organism information of a subject, and an organism information processing server for executing a previously determined processing to the information received from the organism information detecting apparatus (Fig. 14, reference 1208 is used as a processing server for executing processing of the information received from organism information detecting apparatus 1201 and 1202);

Wherein the organism information detecting apparatus includes:

- Organism information detecting means for detecting the organism information of the subject by being brought into contact with the subject for a previously determined sampling time period and outputting an organism signal (Fig. 1; col. 4, lines 16-38);
- Organism information data calculating means for calculating an organism information data by processing the organism signal (Fig. 1; col. 4, lines 45-54);
- Supplementary data calculating means for calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data (Fig. 11; col. 8, lines 53-67). The supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;

- Communicating means for relating the organism information data and the supplementary data to be transmitted to the organism information processing server (Fig. 14 relates the supplementary data of SN condition resultant from sensors 1201 and 1202 to be transmitted to cpu server 1208)

Wherein the organism information processing server includes:

- communicating means for receiving the organism information data and the supplementary data from the organism information detecting apparatus (Fig. 14 - wherein CPU server 1208 receives data transmission from organism information detecting apparatus 1201
- data storing means for relating the organism information data and the supplementary data to be stored (Fig. 1, reference 106; col. 5, lines 5-30);
- motion state determining means for determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.
- Reliability degree determining means for determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state determined by the motion state determining means is a previously determined motion state (col. 6, lines 10-34). An SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a

determination is made that the SN level condition is good, then the pulse data is considered “reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state. Specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Regarding claim 11, Aoshima et al. teaches an organism information processing method for detecting organism information of a subject (Fig. 14, reference 1208 is used for processing of the information received from organism information detecting apparatus 1201 and 1202), the organism information processing method comprising:

- A step of detecting the organism information of the subject by being brought into contact with the subject by a previously determined sampling time period and outputting an organism signal (Fig. 1; col. 4, lines 16-38);
- A step of calculating an organism information data by processing the organism signal (Fig. 1; col. 4, lines 45-54);
- A step of calculating an average value of a variation amount per time of a data constituted by digitizing the organism signals as a supplementary data of the organism information data (Fig. 11; col. 8, lines 53-67). The supplementary data as determined by the average of base line spectrums N

and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process; and

- A step of relating the organism information data and the supplementary data to be stored (Fig. 1, reference 106; col. 5, lines 5-30).

Regarding claim 12, Aoshima et al. teaches a step of determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.

Regarding claim 13, Aoshima et al. teaches a step of determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state is a previously determined motion state (col. 6, lines 10-34). An SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a determination is made that the SN level condition is good, then the pulse data is considered "reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state. Specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as

revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Regarding claim 15, Aoshima et al. teaches an organism information processing method communicating information with an organism information detecting apparatus for detecting organism information of a subject by a previously determined sampling time period and outputting an organism signal (Fig. 14 – CPU server 1208 communicates information with an organism information detecting apparatus 1201 and 1202; Fig. 1; col. 4, lines 16-38), calculating an organism information data by processing the organism signal, and calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data and executing a previously determined processing to the information received from the organism information detecting apparatus (Fig. 1; col. 4, lines 45-54; Fig. 11; col. 8, lines 53-67). The supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process. the organism information processing method comprising:

- A step of relating the organism information data and the supplementary data received from the organism information detecting apparatus to be stored (Fig. 1, reference 106; col. 5, lines 5-30);
- A step of determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a

previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.

- A step of determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state determined by the motion state determining means is a previously determined motion state (col. 6, lines 10-34). A SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a determination is made that the SN level condition is good, then the pulse data is considered "reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state. Specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Regarding claim 16, Aoshima et al. teaches an organism information processing method used in an organism information detecting system comprising an organism information detecting apparatus for detecting organism information of a subject, and an organism information processing server for executing a previously determined processing to the information received from the organism information detecting apparatus (Fig. 14 – CPU server 1208 communicates

information with an organism information detecting apparatus 1201 and 1202; Fig. 1; col. 4, lines 16-38); wherein the organism information detecting apparatus executes a method comprising:

- A step of detecting the organism information of the subject by being brought into contact with the subject by a previously determined sampling time period (Fig. 1; col. 4, lines 16-38);
- A step of calculating an organism information data by processing the organism signal (Fig. 1; col. 4, lines 45-54);
- A step of calculating an average value of a variation amount per time of a data constituted by digitizing the organism signal as a supplementary data of the organism information data (Fig. 11; col. 8, lines 53-67); the supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;
- A step of relating the organism information data and the supplementary data to be transmitted to the organism information processing server (Fig. 1, reference 106; col. 5, lines 5-30); and

Wherein the organism information processing server executes a method comprising:

- A step of relating the organism information data and the supplementary data received from the organism information detecting apparatus to be stored (Fig. 1, reference 106; col. 5, lines 5-30);

- A step of determining a motion state of the subject when the organism information is detected based on whether the supplementary data exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.
- A step of determining a reliability degree of the organism information data related to the supplementary data based on whether the motion state determined by the motion state determining means is a previously determined motion state (col. 6, lines 10-34). A SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a determination is made that the SN level condition is good, then the pulse data is considered "reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state; specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Regarding claim 17, Aoshima et al. teaches a motion state determining method for determining a motion state of a subject when organism information is detected in an organism information detecting comprising organism apparatus information detecting means brought into contact with the subject for detecting

the organism information of the subject by the organism information detecting means (Fig. 11; col. 8, lines 53-67; Fig. 1; col. 4, lines 16-38), the motion state determining method comprising:

- A step of acquiring a data constituted by digitizing an organism signal during a previously determined sampling time period outputted by the organism information detecting means (Fig. 1; col. 4, lines 16-38);
- A step of calculating an average value of a variation amount per time of the data (Fig. 11; col. 8, lines 53-67); the supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;
- A step of determining the motion state of the subject when the organism information is detected based on whether the average value of the variation amount exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.

Regarding claim 18, Aoshima et al. teaches a reliability degree determining method for determining a reliability degree of organism information in an organism information detecting apparatus comprising organism information detecting means brought into contact with a subject for detecting the organism information of the subject by the organism information detecting means (col. 6,

lines 10-34; Fig. 1; col. 4, lines 16-38), the reliability degree determining method comprising:

- A step of acquiring a data constituted by digitizing an organism signal during a previously determined sampling time period outputted by the organism information detecting means (Fig. 1; col. 4, lines 16-38);
- A step of calculating an average value of a variation amount per time of the data (Fig. 11; col. 8, lines 53-67); the supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;
- A step of determining the motion state of the subject when the organism information is detected based on whether the average value of the variation amount exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.
- A step of determining a reliability of the organism information based on whether the motion state is a previously determined motion state (col. 6, lines 10-34). A SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a determination is made that the SN level condition is good, then the pulse data is considered "reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of

pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state. Specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Regarding claim 19, Aoshima et al. teaches a program which is a program for making a computer realize a function of determining a motion state of a subject by using a digital data of an organism signal outputted by organism information detecting means of an organism information detecting apparatus (Fig. 11; col. 8, lines 53-67; Fig. 1; col. 4, lines 16-38) comprising the organism information detecting means for detecting organism information of the subject by being brought into contact with the subject for making the computer realize:

- A function of making the computer read the digital data (Fig. 14; Fig. 1; col. 4, lines 16-38);
- A function of calculating an average value of a variation amount per time of the data (Fig. 11; col. 8, lines 53-67); the supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;
- A function of determining the motion state of the subject when the organism information is detected based on whether the average value of the variation

amount exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN condition; in this case, higher levels of SN will indicate more movement in the system.

Regarding claim 20, Aoshima et al. teaches a program which is a program for making a computer realize a function of determining a reliability of organism information by using a digital data of an organism signal outputted by organism information detecting means of an organism information detecting apparatus (col. 6, lines 10-34; Fig. 1; col. 4, lines 16-38) comprising the organism information detecting means for detecting organism information of the subject by being brought into contact with the subject for making the computer realize:

- A function of making the computer read the digital data (Fig. 14; Fig. 1; col. 4, lines 16-38);
- A function of calculating an average value of a variation amount per time of the data (Fig. 11; col. 8, lines 53-67); the supplementary data as determined by the average of base line spectrums N and N' are correspondent to a variation amount per time of a data as N and N' dictate a variation level of noise in the pulse waves over a minute interval determined by the extraction process;
- A function of determining the motion state of the subject when the organism information is detected based on whether the average value of the variation amount exceeds a previously determined threshold (Fig. 11; col. 8, lines 53-67). A motion state of the subject is determined by the level of the SN

condition; in this case, higher levels of SN will indicate more movement in the system.

- A function of determining a reliability of the organism information based on whether the motion state is a previously determined motion state (col. 6, lines 10-34). A SN level as determined from the supplementary data is used as a reliability determining means by comparison with an accepted threshold. As stated, when a determination is made that the SN level condition is good, then the pulse data is considered "reliable" and presented on display. Furthermore, it is inherent that when the system is run over several cycles of pulse waves, large motion state indicated by a certain level of SN higher than the predetermined threshold value is considered a previously determined motion state; specifically, when the system is run over a several cycles of pulse reading measurements, there will be repeated measurements of motion states as revealed by multiple readings of SN levels that exceed predetermined threshold levels.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being obvious over Aoshima et al. (US Patent 6,099,478) in view of Lijima et al. (US Publication 2004/0116786 A1).

Regarding claim 5, Aoshima et al. does not specifically teach a power source controlling means for controlling ON/OFF of a power source of the organism information detecting means based on whether the reliability degree determined by the reliability determining means is the previously determined

reliability degree. However, Lijima et al. does teach the use of a power source controlling means for controlling ON/OFF of a power source (see abstract; Fig. 1, references 103 and 106; [0057]; [0059]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Aoshima et al. to include a power source controlling mechanism similar to that to that of Lijima et al. in order to provide a means for saving power. Aoshima et al. teaches a control means for selectively displaying a pulse signal if SN/reliability conditions are good and removing display of the signal when SN/reliability conditions are not good. It would have been obvious to one of ordinary skill in the art to further extend such control means to include a power control means with an ON/OFF switch to improve the energy efficiency of the device. It is noted that Aoshima et al. and Lijima et al. are both directed to pulse wave detecting mechanisms and analysis.

Regarding claim 6, Aoshima et al. does not specifically teach a communicating means for communicating information with an organism information processing server disposed at a remote location; and schedule executing means for detecting the organism information based on schedule information of measuring the organism information from the organism information processing server received by the communicating means; wherein the communicating means transmits the organism information data and the supplementary data to the organism information processing server as a data of result of executing the schedule executing means. However, Lijima et al. teaches a communicating means for communicating information with an organism information processing

server disposed at a remote location (Fig. 1, reference 107; Fig.3a; [0066]-[0067]) . It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Aoshima et al. to include a communicating means for communicating information with an information processing server disposed at a remote location in order to provide other health professionals and practitioners data regarding the patient's pulse rate information in remote locations. Furthermore, Lijima et al. teaches a schedule executing means for detecting the organism information based on schedule information of measuring the organism information from the organism information processing server received by the communicating means (see abstract; [0077]) wherein the communicating means transmits the organism information data and the supplementary data to the organism information processing server as a data of result of executing the schedule executing means ([0084]; Fig. 4; Fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Aoshima et al. to include a schedule executing means for detecting the organism information based on schedule information in order to regulate the periods of measurement to discrete, definable time periods - in this manner, a practitioner may be able to calibrate the data better as well as provide better comparison mechanisms with prior data.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsubata et al. (US Publication 2007/0195989 A1) teaches a biometric information detecting apparatus that includes measurements of interference/noise due to motion in which an SN ratio is used to determine a threshold to ensure reliability of data

Odagiri et al. (US Patent 5,697,374) teaches a pulse rate monitor with a pulse wave detector and a motion detector to provide accurate readings of pulse wave in light of motion noise; it also teaches a power consumption control mechanism in which unnecessary circuitry and operations are turned off when not needed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY CHOI whose telephone number is (571)270-5335. The examiner can normally be reached on Monday-Friday, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles A. Marmor, II/
Supervisory Patent Examiner
Art Unit 3735

/J. C./
8/27/2010
Examiner, Art Unit 3735